

Heritage 2020

What's over the digital horizon for heritage?

Heritage 2020 initiated a day of inquiry and experience sharing for the historic environment sector as its 2018 'foresight' workshop. This document summarises the presentations given at that workshop, captures the essence of the discussion sessions and the suggestions made as actions that could be taken forward under the Heritage 2020 collaborative working initiative.

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1 Background

New technologies have already had a transformative effect on every aspect of the heritage sector's work. Visits to heritage places are planned through smartphone-enabled websites; Facebook, Instagram, Pinterest and other platforms enable favourite sites to be 'liked' and shared with fellow communities of interest; projects such as a 'Enriching the List' create the possibility of wider forms of heritage significance to be captured and recorded alongside digitised versions of the official designations of sites and buildings; BIM (Building Information Management) and Geospatial imaging provide new ways of managing heritage assets. Digital platforms are opening up heritage, making the experience more shared and interactive, and providing new ways to capture heritage values.

The nature of technology is such that really big transformations may yet still be around the corner and, for now, remain invisible to many.

The Heritage 2020 foresight workshop set out to critically examine some of the ‘digital game-changers’ and their implications for the heritage sector. Desired outcomes for the day were identified as:

1. Digital experts will inspire participants with the ‘art of the possible’.
2. Participants will build connections: with each other, and to relevant strategic agendas.
3. A collective sense of the sector’s digital ambitions and where opportunities for collaborative working lie.

2 Presentations

Opening address - Michael Ellis MP, Minister for the Arts, Heritage and Tourism

Providing the strategic context for the day, Michael Ellis MP spoke about the opportunities that digital technologies provide for heritage – particularly in terms of the opportunities for people to experience heritage. The [Digital Strategy](#)¹, [Culture White Paper](#)² and [Culture is Digital report](#)³ (launched 7 March) all stress the role of digital technology in 21st century Britain and point to opportunities for connecting people to heritage and the necessity of developing digital skills. Culture is Digital, in particular, showcases the UK as a global leader in culture and digital and describes the UK technology and cultural sectors as ‘the ultimate power couple’ with many opportunities for each to contribute to the growth and success of the other. The recently launched [Heritage Statement](#) (December 2017), which identifies where Government can best add value to the heritage sector, also highlights how the sector can use technology – from increasing digitization and improving access to digital assets, to a more effective use of digital technology and better digital ‘offer’ to attract and engage new and more diverse audiences.

The address was a timely, and encouraging, reminder of the many and varied opportunities for the heritage sector to work with the wider cultural and technology sectors.

Karen Brookfield, Deputy Director (Strategy), Heritage Lottery Fund

The Heritage Lottery Fund will be putting in place a number of new digital initiatives – as identified in the Culture is Digital report – not least funding a £1m campaign over two years to help build the sector’s digital capacity.

Karen shared data from a snapshot survey of the digital outputs of projects from four HLF programmes that had been awarded funding between November 2015 and November 2016; the research was a repeat of a study carried out in 2015. Her presentation gave a statistical insight into the extent to which projects are creating digital outputs (95% are), the nature of the content produced, reasons for production and who the outputs are targeted at. The research also provides information on how the digital heritage that is created is being sustained, and how projects are developing the digital skills and capabilities of staff and volunteers.

Exploring the barriers faced by organisations whilst producing digital outputs, the research found the same top three barriers as identified by the Nesta [Digital Culture 2017](#)⁴ survey.

These are:

- Lack of in-house staff time
- Lack of funding to allocate to digital projects
- Difficulty in accessing external funding for digital projects

¹ UK Digital Strategy www.gov.uk/government/publications/uk-digital-strategy

² Culture White Paper www.gov.uk/government/publications/culture-white-paper

³ Culture is Digital <https://www.gov.uk/government/publications/culture-is-digital>

⁴ Digital Culture 2017 https://www.nesta.org.uk/sites/default/files/digital_culture_2017.pdf

Comparing the 2015 and 2018 HLF datasets, Karen pointed out a welcome reduction in the percentage of respondents for whom 'digital not valued by organisation' is identified a significant barrier (down from 23% to 5%). However, the data shows an increase in lack of in-house skills/knowledge (from 5% to 18%) suggesting that the forthcoming campaign is a much-needed intervention.

Mike Heyworth, Chair of Heritage 2020

As Chair of the Heritage 2020 initiative, that seeks to build on the collaborative working by organisations in the historic environment sector, Mike provided detail on the format of the workshop.

Three speakers from different parts of the cultural sector had been invited to show participants what might be over the digital horizon, with each asked to give a short presentation that captures 'the art of the possible' in terms of how digital technology can be used to make good use of data, reach new audiences, and address skills needs. The presentations were to be followed by wide-ranging plenary discussion before more focused sessions in the afternoon.

Chris Michaels, Digital Director, National Gallery

Chris was asked to share how technology can be used in many different parts of an organisation's operations to improve data usage and visitor experience.

He proposed that museums now exist for their audience in both a physical and virtual space and that this creates a new type of relationship. As part of the digital experience, visitors exist as 'data' and this presents opportunities to re-think what the organisation does, why, and how. Using timed exhibitions tickets, audio guides and membership subscriptions as areas in which old technology still dominates in the sector, Chris gave examples of the transformation that could be achieved through relatively small changes in practice driven by an understanding of audience data. For the National Gallery this had involved building a new ticketing model and a new approach to asking for (in person) visitor donations.

The main take away points? Data will help us to understand our audiences better; technology is not a 'solution' but a tool for improving our collection, use and understanding of data. Transformation can be achieved through a series of small changes rather than one big shift in application of technology.

Sarah Toplis, Commissioning Executive, The Space

"The Space is an organisation that brings arts organisations, artists and technology together to make great art and reach new audiences. It does this by commissioning projects, building digital skills, and helping organisations and venues reach more people using digital media." (www.thespace.org).

Sarah had been asked to speak about The Space's work helping arts organisations to reach new audiences through the use of technology. Her first point that was that developing an understanding of how your audience engages is the critical first step in developing any offer.

She used the stunning Forestry Commission project 'In the Eyes of the Animal' as an example of a project that engages visitors through virtual reality (www.iteota.com/experience/welcome-to-the-forest) but pointed out that if your goal is expanding audience reach, this type of virtual reality, solo experience, will not achieve that. However, developing an accompanying website and mobile VR experience can.

A second example featured work by Yorkshire Sculpture Park that responds to how visitors already experience the Park. The Yorkshire Sculpture Park knows that its visitors take many photos on hand-held devices when they visit the park. In their 'Sculpture Cam' project (<https://yosp.org.uk/learning/sculpture-cam>) they invite visitors to take part in a 'digital treasure hunt' and take and upload pictures of certain sculptures which are then combined using photogrammetry

to create 3D animations of sculptures in the park. Visitors are rewarded with facts about the artist when they contribute an image.

Caroline Peach, Heritage 2020

Substituting for Tonya Nelson from UCL, Caroline gave an overview of the skills strand of the 'Culture is Digital' policy paper that had been launched at the National Gallery the previous day.

The Culture is Digital project was born out of the Culture White Paper and was launched in April 2017 as an online consultation to explore how culture and technology can work together to 'drive audience engagement, unleash the creative potential of technology and boost the capability of culture organisations'. The project was framed around three core themes of audiences, skills and content – and this presentation focused on the skills strand and the policy commitments made in this area.

In overview, the policy commitments are intended to:

- Understand current capability and have a mechanism to improve it
- Demonstrate commitment to improving as a sector
- Build capability through networks of expertise and projects that strengthen digital capacity
- Address specific areas for improvement: leadership, data, intellectual property

Organisations from across the cultural sector will work together to take forward these commitments. Significant for the cultural sector are Arts Council England, working with Heritage Lottery Fund and partners will create and pilot the use of a Digital Maturity Index and a Digital Culture Code. And the Heritage Lottery Fund's funding of a £1m campaign over two years to attract high quality projects to build the sector's digital capacity.

3 Plenary discussion

Participants were encouraged to discuss how some of the ideas presented could be applied to the historic environment sector, thinking (in advance of the afternoon discussion sessions) about application for:

- New audiences – e.g. stimulating new engagement with heritage through technology
- Skills – e.g. impact on traditional skills, new (digital) skills needed by the sector, platforms for delivery of training and skills development
- Conservation management – e.g. opportunities for improving the ways in which heritage is managed and protected; and for the democratisation of each.
- Re-use of data – e.g. for research, for commercialisation.

The wide-ranging discussion explored many different facets the use of technology with the following emerging as key themes:

- Digital technology should be thought of as a tool not an output
- The sector does not have a good understanding of its audience(s)
- A proliferation of systems is a barrier to sharing and re-use of sector data (for all sorts of different applications). Agreement on common standards would be advantageous.
- Form partnerships to share knowledge, develop new skills and reduce risk
- Harness the digital literacy of individuals to improve the digital maturity of organisations
- The need for a 'safe space' to experiment with new technology or change attitude to risk

See also raw plenary notes at end

4 Group sessions – Digital ambitions

In the afternoon, participants worked in their chosen groups to identify a single digital ambition for each of the four themes (New audiences; Skills; Conservation management; Re-use of data).

They were asked to consider, for example:

- What is the opportunity?
- Is this a priority?
- What would the benefits be?
- How can the heritage, cultural and digital sectors work together?
 - Where are there examples of work in progress?
 - What are the mechanisms that support productive collaborative working?
 - What needs to be improved and how can improvements be achieved?

New audiences

The ambition

We need to use technology to generate a better understanding of heritage audiences and their segmentation.

Why?

People have unique experiences of heritage and the sector needs a better understanding of what inspires people to connect to heritage to develop new audiences.

There are many different heritage assets and, correspondingly, many different standards and platforms in use to collect data about audiences and their experiences.

There is a need to understand the complexity and diversity of heritage audiences; to understand the quality and depth of engagement rather than just numbers.

Audience segmentation will give detail, and can be powerful, but it's double-edged (collecting data that people don't want collected).

Unified standards, or a common approach to understanding audiences, could help to generate data that will improve how the sector engages with and grows its audience, and changes its audience.

The potential for collaboration

Arts Council England has worked with others to develop training on audience analysis and an associated analytical toolkit.

Building an analytical toolkit and providing training would help people from the heritage sector. Learn lessons from ACE around capturing data.

There is the potential to work with technology companies to address the need, and to mitigate against the lack of skills within the sector. The heritage sector is not, presently, good at forging partnerships with technology organisations.

Skills

The ambition

Leverage individual capability (digital literacy) to address slowness in the development organisations' digital maturity.

Why?

Talked about individual digital literacy and organizational digital maturity.

Digital literacy: the ability to use information and communication technologies to find, evaluate, create and communicate information.

Digital maturity: where digital is embedded across an organisation throughout every part of the business.

In terms of organizational digital maturity, there are lots of different systems doing the same things (in the sector), but organisations can be slow to develop digital maturity because of the proliferation of systems and options.

People are often more digitally literate than they think they are. In their personal life they are used to using technology for a variety of daily applications and they choose which platforms they use and which technologies they engage with.

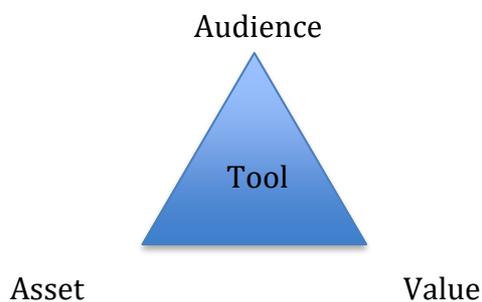
As a result, the individuals working at an organisation are more digitally literate than the digital maturity of the organisations they work in.

How do you leverage individual capability to address an organisation's digital immaturity?

The potential for collaboration

To achieve digital maturity, adopt an approach that involves teaching people to use technology as a tool to achieve goals in each of the areas of the triangle of competency.

Triangle of competency (below)



Provide training / build capability in individuals to understand how the asset-audience-value triangle works.

As individuals gain experience, they will build organizational digital maturity and generate a culture of digital critical thinking that is embedded within the organisation.

The skills required to understand the triangle of competency are given to individuals when they arrive at an organisation. For example, as part of an 'induction' pack – e.g. deliver as a quiz, game. This could be developed on behalf of the sector, or examples in use could be shared by the sector – and customized by different organisations to address their needs.

Data

The ambition

Shared data services (around a CRM), a common platform that is open source, to help to address the need to make better use of data for lots of small under-funded organisations.

Why?

Two different sorts of data

- about audiences
- for audiences

These have similar and different demands

Data about audiences

There is a growing body of work to understand who audiences are and how they inter-relate (CRMs) etc.

There is the potential to go into partnership to spread the costs – but worries about sharing data.

Data for audiences

Lots of work has already been done, e.g. around impact of linked open data. A report was published by Jisc five years ago, and things haven't changed. (Review of the evidence for the value of the 'linked data' approach, see: <http://repository.jisc.ac.uk/559/>)

Other relevant past work:

Research Education Space <http://bbcarchdev.github.io/res/>

Towards a UK Digital Public Space: a blueprint report (2014), Jisc et al,

<https://digitisation.jiscinvolve.org/wp/2014/12/08/towards-a-uk-digital-public-space-a-blueprint-report/>

BBC slash programmes

The potential for collaboration

There's a need for shared advocacy to produce a framework for data services, bringing together heritage and academic sectors, to unify approach and bring economies of scale to bear.

Conservation management

Digital technology has many real and potential applications that benefit conservation management. There is good technology available, it's useful and it produces valuable information. But not everyone can use it, for reasons of: financial viability, skills and confidence, difficulty in finding the right people to use.

Knowing who to use is particularly challenging because of the plethora of platforms, branded tech., and variety of approaches.

A production goal should be quality that lasts over time and good storage systems that will, again, endure over time.

The ambition

Historic Environment Records – linked up and accessible online. Live, updateable, searchable.

Why?

This is a long-held ambition of the sector. It is time to push on it again to make sure records are linked up and accessible.

Information needs to be live, updatable and searchable.

There are challenges around release of data and its re-use.

Additional thoughts

Festival of Failure

An opportunity to share when and why things go wrong. This would help to address where the sector has skills deficits and where development is needed.

Data

There has been agreement in the sector on what is needed for a while, but conversations haven't moved on. This might be because the mechanisms haven't been available to address the need or because it hasn't been the right time.

An ideas forum

The Museum sector as the Museums Computer Group, which includes a community discussion list (Jisc list). Do we need something similar?

5 Next steps

The summary of this workshop will be produced, shared with attendees and published online.

The workshop will be discussed by the Heritage 2020 groups to see how the Heritage 2020 framework can apply the shared learning of the day, and which tangible elements can be taken forward.

The topic will be used in a future #HeritageChat to gain wider sector input (19 April 2018).

[The #HeritageChat has taken place and a summary is now available at:

<http://www.heritage2020.net/whats-over-the-digital-horizon-for-heritage-heritagechat/>]

6 Plenary discussion following presentations – raw notes

DATA

Digital as tool - not necessarily output
 => do things more efficiently

Common standards to enable people to create content
 - agree on technology
 - compete on content

Tech used for research / conservation management - not thinking about applications to audiences

Ethics - privacy rights
 data harvesting

Physical/Virtual - a false divide?

Fundamental connection to audiences
 - what it is
 - how we use it
 - how captured (informed by audience)

1/2 (DATA - 2/2)
 Networks
 Cross-sectoral partnerships
 R+D to inform project outputs (pre-funding)

Understanding data - how are people using things?

Big data
 Value - of data, products, implications for re-use (licensing, IP -> skills)

Metadata - visibility of data
 Authenticity - implications for re-use

Risk appetite

CONSERVATION MANAGEMENT

- Common standards needed
- How integrated with engagement
- ensure skills produce high quality data
- list of high quality providers

AUDIENCES

Not an aim or digital in itself

- How help internal processes - internal audiences
- learn from others in sector - positives + mistakes
- Backlash against digital? Eventually become an integration mixture?
- Partnerships with other sectors - empty impact
- Need to understand data to understand audiences
- What do audiences need from data? (skills in analytics)
- Audiences of the future not currently engaging - how do we address?
- Network effects
- Promised output in order to get funding - rather than learning about audiences and taking risks
- What are audiences doing on digital?
- Computer games
- difficulty in production
- Impact of ethics - digital literacy - public sector -> audience opportunities
- VR - meet consumer demand?
- Democratisation of access to collections for those who will never see in person

SKILLS (1/2)

Share learning (including 'failures')
 | as part of skills/knowledge development
 Dig. as mechanism for doing this?

Nesta - focusing on/understanding of skills around R+D + innovation.
 Culture excluded from this => behind.
 Need standards/methods to have effect

Reduce/displace risk by working with others who have experience

Knowledge - where does it sit?
 Big / Small organisations
 Agility, Flexibility
 Speed to innovate

Risk

(SKILLS 2/2)
 Stats + analytics skills (data skills)
 Digital skills + Digital literacy
 (Digital 'natives' taking control) - audiences

Lack of skills + standards inhibit potential to re-use data
 Who's doing the training?
 Are there partnerships that can be created?
 with commercial - trust

Communication skills